REMARKS/ARGUMENTS

Claims 1-14 and 16-26 are pending in the present application.

This Amendment is in response to the Office Action mailed October 27, 2006. In the Office Action, the Examiner rejected (1) claims 1-26 under 35 U.S.C. §102(e); and (2) claims 1-14, 16-25 were rejected under 35 U.S.C. §103(a). Reconsideration in light of the remarks made herein is respectfully requested.

Rejection Under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 1-26 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,651,101 issued to Gai et al. ("Gai"). Applicants respectfully traverse the rejection and submit that the Examiner has not met the burden of establishing a prima facie case of anticipation.

Gai discloses a method and apparatus for identifying network data traffic flows and for applying quality of service treatments to the flows. A local policy enforcer monitors the traffic originating from the network entity and, by examining the IP source and destination addresses, applies the prescribed policy or service treatments to the given traffic flow (Gai, col. 4, lines 61-65). The local policy enforcer may include an admission control module that determines the percentage of time that its CPU as remained idle recently, its available memory for storing policies associated with components, and the availability of its traffic management resources (Gai, col. 12, lines 41-48).

Gai does not disclose, either expressly or inherently, at least one of (1) a network interface including (i) filters including at least one filter being triggered to denote when a received packet satisfies filter criteria corresponding to an admission policy related to differentiated service levels, and associated with the at least one filter and (ii) a classifier, communicatively coupled to the filters, to classify and mark one of the service levels associated with the received data packet in response to satisfying the filter criteria associated with the at least one filter; and (2) a controller coupled to the network interface, to dynamically create and remove the filters controlling access to the different service levels based, at least in part, on an admissions profile of the admission policy.

Gai merely discloses identifying specific traffic flows originating from a network entity and applying predetermined policy or service treatments to those flows (Gai, col. 4, lines 37-39), not one filter being triggered to denote when a received packet satisfies filter criteria, or a controller to dynamically create and remove the filters. A flow declaration component provides one ore more application-level parameters to a local policy enforcer (Gai, col. 4, lines 53-57). The application-level parameters include such information as user name, user department, application name, transaction type, application state, etc. (Gai, col. 10, lines 10-37). These parameters are only related to the application, not the filter criteria.

Furthermore, the local policy enforcer only applies the prescribed policy or service treatments to the given traffic flow (Gai, col. 4, lines 61-65), not dynamically creates or removes filters. Applying the prescribed policy merely enforcing the policy, while dynamically creating or removing filters affect the placement of the filters.

The Examiner cited several excerpts in Gai to support his arguments. However, these excerpts do not describe the claimed elements as discussed below.

The Examiner contents that Gai discloses a filter means, citing, Fig. 5, Traffic Management Controller, col. 10, lines 12-34 (Office Action, page 13, paragraph number 41). However, there is no Fig. 5. Instead, there are Figures 5A and 5B. These figures are merely schematic block diagrams showing the preferred format of an application parameter declaration message. In addition, (Gai, col. 10, lines 12-34) merely discloses the information provided by the application-level parameters, not differentiated service levels, as shown below.

> "The application-level parameters may encompass a whole range of information relating to different aspects of the traffic flow from the application program 224. For example, application-level parameters include such information as user name (e.g., John Smith), user department (e.g., engineering, accounting, marketing, etc.), application name (e.g., SAP R/3, PeopleSoft, etc.), application module (e.g., SAP R/3 accounting form, SAP R/3 order entry form, etc.), transaction type (e.g., print), sub-transaction type (e.g., print on HP Laser Jet Printer), transaction name (e.g., print monthly sales report), sub-transaction name (e.g., print monthly sales report on A4 paper), application state (e.g., normal mode, critical mode, primary mode, back-up mode, etc.). For a video streaming application, the application-level parameters might include user name, film name, film compression method, film priority, optimal bandwidth, etc. Similarly, for a voice over IP

application, the application-level parameters may include calling
party, called party, compression method, service level of calling
party (e.g., gold, silver, bronze), etc. In addition, for World Wide
Web (WWW) server-type applications, the application-level
parameters may include Uniform Resource Locator (URL) (e.g.,
http://www.altavista.com/cgi-in/
query?pg=aq&kl=en&r=&search=Search&q=Speech+ne
ar+recognition), front-end URL (e.g., http://www.altavista.com),
back-end URL (e.g.,
query?pg=aq&kl=en&r=&search=Search&q=Speech+near+recogn
ition), mime type (e.g., text file, image file, language, etc.), file
size, etc. Those skilled in the art will recognize that many other
application-level parameters may be defined."
(Gai, col. 10, lines 7-37)

The Examiner further contends that Gai discloses controlling access to differentiated
service levels (Office Action, page 13, paragraph number 41), citing col. 11, lines 14-56; col. 13,
liens 1-10; col. 12, lines 25-31, and col. 15, lines 43-54. However, none of these excerpts
supports the Examiner's contentions as shown below.

"It should be understood that other protocols, including but
not limited to connectionless protocols such as UDP, may be used
to establish communication between the flow declaration
component 226 and the local policy enforcer 210. Additionally,
component 226 may communicate with local policy enforcer 210
at the network layer by addressing IP format APD messages to end
station 212 (i.e., using the same destination address as the
anticipated traffic flow) with the well-known Router Alert IP
option asserted. Here, local policy enforcer 210 will intercept such
asserted network layer packets and may act on them itself and/or
forward them to some other network device.
Component 226 may be preconfigured with the IP address
of the local policy enforcer 210 or it may dynamically obtain the
address of a local policy enforcer. For example, component 226 or
application program 224 may broadcast an advertisement seeking
the IP address of an intermediate network device that is capable of
obtaining and applying policy or service treatments to the
anticipated traffic flow from program 224. Local policy enforcer
210 is preferably configured to respond to such advertisements
with its IP address.
Component 226 may receive a "virtual" address that
corresponds to a group of available local policy enforcers in a
manner similar to the Standby Router Protocol described in U.S.
Pat. No. 5,473,599, which is hereby incorporated by reference in

its entirety. A single "active" local policy enforcer may be elected from the group to perform the functions described herein.

It should be further understood that the flow declaration component 226 preferably opens one TCP session with the local policy enforcer 210 per application program 224 per network interface card (NIC). More specifically, if host/server 222 is connected to network 200 through multiple LANs (each with a corresponding NIC), then traffic flows from program 224 may be forwarded onto any of these LANs. To ensure that the appropriate policy or service treatments are applied regardless of which LAN initially carries the flow, flow declaration component 226 preferably establishes a separate communication session with a local policy enforcer 210 through each LAN (i.e., through each NIC) for every program 224 that requests services from component 226.

In particular, flow declaration component 226 directs message generator 230 to formulate a Client Open message 420 for forwarding to the local policy enforcer 210. The Client Open message 420 establishes communication between the local policy enforcer 210 and the flow declaration component 226 and may be used to determine whether the local policy enforcer 210 has the resources to monitor the anticipated flow from the application program 224 and to apply the appropriate policy or service treatments." (Gai, col. 11, lines 9-61)

The above excerpt merely discloses the communication between the flow declaration component 226 and the local policy enforcer 210. None of these is related to types of traffic such as best effort or traffic templates, as alleged by the Examiner.

"The traffic flow state machine engine 310 hands the Client Accept message 422 to its communication engine 312 which may encapsulate the message as required and forwards it to the host/server 222. At the host/server 222 the message is received at the communication facility 228 and passed up to the flow declaration component 226 where it is examined. Flow declaration component 226 examines the operation code field 520 and "learns" that it is a Client Accept message. Flow declaration component 226 also examines the keep alive timer field 532 to determine what value has been specified by local policy enforcer 210, which is used to generate additional APD messages, as described below." (Gai, col. 12, lines 66-67; col. 13, lines 1-10)

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> "Message generator 230 preferably passes the Client Open message 420 down to the communication facility 228 where it is encapsulated into one or more TCP packets and forwarded to the local policy enforcer 210 in a conventional manner." (Gai, col. 12, lines 26-30)

Again, these excerpts merely describe the flow declaration component 226 and the communication with the local policy enforcer 210. Furthermore, element 516 shown in Figures 5A and 5B merely refers to version number, not a Classifier. As discussed above, Figs 5A and 5B merely show the format of an application parameter declaration message. The parameters are related to the application, not a classifier or a filter.

Moreover, Gai merely discloses a local policy enforcer to determine the percentage of time that its processor has remained idle and its availability for storing policies (Gai, col. 12, lines 42-47). Since the processor belongs to a local policy enforcer, its memory cannot be a remote device, as recited in claims 1, 5-6, 21-23. Gai, in effect, teaches away from the claimed invention by teaching storing policies in a local memory, not a remote device.

To anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Vergegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the…claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ 2d 1913, 1920 (Fed. Cir. 1989). Since the Examiner failed to show that Gai teaches or discloses any one of the above elements, the rejection under 35 U.S.C. §102 is improper.

Therefore, Applicant believes that independent claims 1, 13, 21 and their respective dependent claims are distinguishable over the cited prior art references. Accordingly, Applicants respectfully requests the rejection under 35 U.S.C. §102(e) be withdrawn.

Rejection Under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 1-11, 13, 14, and 16-25 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,341,130 issued to Lakshman et al. ("Lakshman") in view of Barzilai et al. ("Barzilai") "Design and Implementation of an RSVP-

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Based Quality of Service Architecture for an Integrated Services Internet", 1998 and in further view of U.S. Patent No. 6,651,101 issued to Gai et al. ("Gai") and claims 12 and 26 under 35 U.S.C. §103(a) as being unpatentable over Lakshman, Barzilai, and Gai as applied to claims 1-11, 13, 14, and 16-25 above. Applicants respectfully traverse the rejection and submit that the Examiner has not met the burden of establishing a prima facie case of obviousness.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *MPEP §2143, p. 2100-129 (8th Ed., Rev. 2, May 2004).* Applicants respectfully submit that there is no suggestion or motivation to combine their teachings, and thus no *prima facie* case of obviousness has been established.

1. Claims 1-11, 13, 14, and 16-25:

Lakshman discloses a packet classification method and apparatus employing two fields. In addition to packet forwarding function, a router may perform a packet filtering function (Lakshman, col. 1, lines 65-67). To perform packet filtering, the router may be provided with a table or list of filter rules specifying routing denial or action to be taken according to specified sources or source address (Lakshman, col. 2, lines 3-5). The general packet classification problem of a packet filter may be modeled as a point-location in a multi-dimensional space (Lakshman, col. 2, lines 49-51). A 2-dimensional filter rule operate on two fields S and D which correspond to the source address value and a group identifier (Lakshman, col. 4, lines 65-67; col. 5, lines 1-3).

Barzilai recites an RSVP-Based quality of service architecture for an integrated services Internet where a reservation protocol (RSVP)-based quality of service (QoS) is used. Barzilai merely discloses a session handle carried in the buffer header used as the classifier for session specific handling of the packet (Barzilai, page 398, col. 1, paragraph 1, 7th sentence). The session handle therefore is merely a message embedded in the buffer header, not a classifier coupled to the filter to classify and mark one of the differentiated service levels. Further,

Barzilai teaches away from Applicant's claimed invention. For example, Barzilai calls for the use of "a statically compiled packet filter . . . ." (Barzilai, page 411, col. 2, paragraph 2).

Gai discloses a method and apparatus for identifying network data traffic flows and for applying quality of service treatments to the flows, as discussed above in the 35 U.S.C. §102(e) rejection.

Lakshman, Barzilai, and Gai, taken alone or in any combination, do not disclose, suggest, or render obvious, at least one of (1) a network interface including (i) filters including at least one filter being triggered to denote when a received packet satisfies filter criteria corresponding to an admission policy related to differentiated service levels, and associated with the at least one filter and (ii) a classifier, communicatively coupled to the filters, to classify and mark one of the service levels associated with the received data packet in response to satisfying the filter criteria associated with the at least one filter; and (2) a controller coupled to the network interface, to dynamically create and remove the filters controlling access to the different service levels based, at least in part, on an admissions profile of the admission policy.

The Examiner contends that Lakshman discloses filters including at least one filter being triggered to denote when a received packet satisfies filter criteria corresponding to an admission policy (filter rules) related to differentiated service levels (Office Action, page 3, paragraph number 8). Applicants respectfully disagree. The filter rules are not the admission policy. Filter rules may be based on source addresses, destination addresses, source ports, destination ports, and/or any combination of these fields (Lakshman, col. 2, lines 20-25). The filter merely performs a point-location in a multi-dimensional space (Lakshman, col. 2, lines 49-51). Point-location is not related to differentiated service levels. Furthermore, they are not dynamically created or removed based on an admission profile of the admission policy.

Barzilai merely discloses a session handle, not a classifier to clarify and mark one of the differentiated service levels. The filters are set up at the routers and at the hosts to classify packets belonging to an RSVP flow, and to treat them in accordance with the reservation made for the flow (Barzilai, page 399, left column, lines 12-15). The filter therefore is a statically compiled packet filter for traffic classification during reservation set up signaling (Barzilai, page 411, right column, lines 13-15).

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The Examiner contends that <u>Barzilai</u> teaches a general classifier for real-time packet forwarding and packet filters that provide general and flexible classification of incoming packets to application end points and dynamic code generation techniques that are applied to realize very efficient packet filters (<u>Office Action</u>, page 4, paragraph number 8). However, these filters do not have criteria corresponding to an admission policy related to differentiated service levels. They are merely used to classify packets based on the RSVP flow which is uniquely identified by the 5-tuple (protocol, src address, src port, dst address, dst port) (<u>Barzilai</u>, page 399, left column, lines 10-12). Dynamic code generation is not the same as dynamically creating and removing the filters based on an admission profile. Dynamic code generation is a technique to delay compilation until the executable is already running. The code of the packet filter is dynamically compiled, not the filter being dynamically created and removed. Furthermore, none of these filters are created or removed dynamically based on an admission profile of the admission policy.

In contrast, Applicant's claimed invention recites, *inter alia*, an apparatus to "dynamically create and remove filters controlling access to the different service levels based, at least in part, on an admissions profile," (Claim 1) a "method for controlling provision of differentiated services . . . comprising . . . (b) to dynamically install or remove a filter in response to determining whether the received data packet satisfies the filter criteria" (Claim 13), and an "apparatus adapted to facilitate communications between a client device and a remote device, comprising: filter means for controlling access to differentiated service levels; . . . and control means for dynamically creating and removing a portion of the filter means based at least in part on an admission profile." (Claim 21).

The Examiner concedes that the specific of dynamic code generation in regards to dynamic filtering are not explicitly disclosed by <u>Lakshman</u> and <u>Barzilai</u>, but contends that <u>Gai</u> discloses dynamic filtering (<u>Office Action</u>, page 5, lines 2-6). Applicants respectfully disagree. As discussed above in the 35 U.S.C. §102(e) rejection, <u>Gai</u> merely disclose applying the prescribed policy or service treatments to the given traffic flow (<u>Gai</u>, col. 4, lines 61-65). <u>Gai</u> is distinguishable from the claimed invention in many aspects. First, a policy or service treatments is not equivalent to a filter. Second, "applying" is not the same as "creating" or "removing". Applying implies using something already in existence. In contrast, "creating" means

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constructing a new filter, and "removing" means eliminating a filter. None of these deals with a filter in existence. Third, a "prescribed" policy means that the policy has been fixed. Therefore, it cannot be dynamically created or removed.

Accordingly, none of Lakshman, Barzilai, and Gai suggests dynamically creating and removing filters. Lakshman merely disclose filter rules, not admission policy. Barzilai merely refers to dynamic code generation to delay compilation of the code for the packet filters, not dynamically creating or removing the filters. Gai merely discloses applying rules or treatments to specific traffic flows, not dynamically creating or removing filters. Accordingly, there is no suggestion to combine the cited references. Thus, no prima facie case of obviousness has been established.

2. Claims 12 and 26:

The Examiner takes official notice that a network administrator having the capability to remove filters based on an expiration of day or time of data is well known in the networking art at the time of the invention (Office Action, page 12, lines 3-6). However, if the Official Notice is taken of a fact, unsupported by documentary evidence, the technical line of reasoning underlying a decision to take such notice must be clear and unmistakable. MPEP 2144.03B, page 2100-132, Rev 2, Feb. 2003. Here, Lakshman or Barzilai does not disclose or suggest removing a filter. The Examiner fails to present a technical line of reasoning to show the official notice that controller dynamically removing a filter based on time of day is clear and unmistakable.

Applicants submit that the Examiner did not meet the burden of providing evidentiary showing first before taking official notice, as required by MPEP 2144.04B. In response to Applicants' arguments, the Examiner states that a traversal by the Applicants that is merely a bald challenge, with nothing more, will be given little weight (Office Action, page 12, lines 15-16), citing In re Boon, 439 F.2d 724, 169 USPQ 231 (CCPA 1971). Applicants respectfully disagree and submit that Boon does not stand for that proposition. In Boon, the Examiner considered the rotary feeder disclosed by the prior art reference as the equivalent of a double door in the claimed invention. The Board affirmed the Examiner's decision and provided a reasoning to support its decision. The Board further included a definition taken from the dictionary to support the decision. The Court agreed with the Board, stating "...such a reference is a standard work, cited only to support a fact judicially noticed and, as here, the fact so noticed

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plays a minor role, serving only 'to fill the gaps' which might exist in <u>the evidentiary showing made by the examiner</u> to support a particular ground for rejection." (Emphasis added.) The Court went on to state that "[w]e did not mean to imply...that a bald challenge, with nothing more, would be all that was needed..." Therefore, the Court in <u>Boon</u> simply states that since the Board took judicial notice to support evidentiary showing by the Examiner, Applicants cannot make a bald challenge to that judicial notice. In contrast, in the instant case, the Examiner did not meet the burden of providing evidentiary showing first before taking official notice, as required by MPEP 2144.04B. The evidentiary showing must include a technical line of reasoning to show the official notice that controller dynamically removing a filter based on time of day is clear and unmistakable. The Examiner also failed to show that the network administrator is equivalent to the controller or the control means, recited in claims 12, 26, and having the characteristics as recited in claims 1 or 21.

Furthermore, even though "time-of-day" is a feature well known in the prior art, this is not claimed in isolation. Claims 12 and 26 recite the controller or control means removes at least one of the filters based on time-of-day. The Examiner has not shown that Official Notice suggests: (1) the controller or control means, and (2) removes at least one of the filters.

In summary, the Examiner failed to establish a prima facie case of obviousness and failed to show there is teaching, suggestion, or motivation to combine the references. When applying 35 U.S.C. 103, the following tenets of patent law must be adhered to: (A) The claimed invention must be considered as a whole; (B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; (C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and (D) Reasonable expectation of success is the standard with which obviousness is determined. <u>Hodosh v. Block Drug Col, Inc.</u>, 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986). "When determining the patentability of a claimed invention which combined two known elements, 'the question is whether there is something in the prior art as a whole suggest the desirability, and thus the obviousness, of making the combination.'" <u>In re Beattie</u>, 974 F.2d 1309, 1312 (Fed. Cir. 1992), 24 USPQ2d 1040; <u>Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.</u>, 730 F.2d 1452, 1462, 221 USPQ (BNA) 481, 488 (Fed. Cir.

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1984). To defeat patentability based on obviousness, the suggestion to make the new product having the claimed characteristics must come from the prior art, not from the hindsight knowledge of the invention. Interconnect Planning Corp. v. Feil, 744 F.2d 1132, 1143, 227 USPQ (BNA) 543, 551 (Fed. Cir. 1985). To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the Examiner to show a motivation to combine the references that create the case of obviousness. In other words, the Examiner must show reasons that a skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the prior elements from the cited prior references for combination in the manner claimed. In re Rouffet, 149 F.3d 1350 (Fed. Cir. 1996), 47 USPQ 2d (BNA) 1453. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or implicitly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." Ex parte Clapp, 227 USPQ 972, 973. (Bd.Pat.App.&Inter. 1985). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Furthermore, although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." In re Mills 916 F.2d at 682, 16 USPQ2d at 1432; In re Fritch, 972 F.2d 1260 (Fed. Cir. 1992), 23 USPQ2d 1780.

In the present invention, the cited references do not expressly or implicitly suggest any of the above elements. In addition, the Examiner failed to present a convincing line of reasoning as to why a combination of Lakshman, Barzilai, and Gai is an obvious application of dynamically controlling the provision of differentiated services.

Therefore, Applicant believes that independent claims 1, 13, and 25 and their respective dependent claims are distinguishable over the cited prior art references. Accordingly, Applicants respectfully request the rejections under 35 U.S.C. §103(a) be withdrawn.

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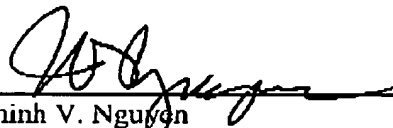
Conclusion

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: January 29, 2007   By_____

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Tu Nguyen   *Date*

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